THE ECONOMIC SITUATION

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- The sub-prime contagion and its cause.
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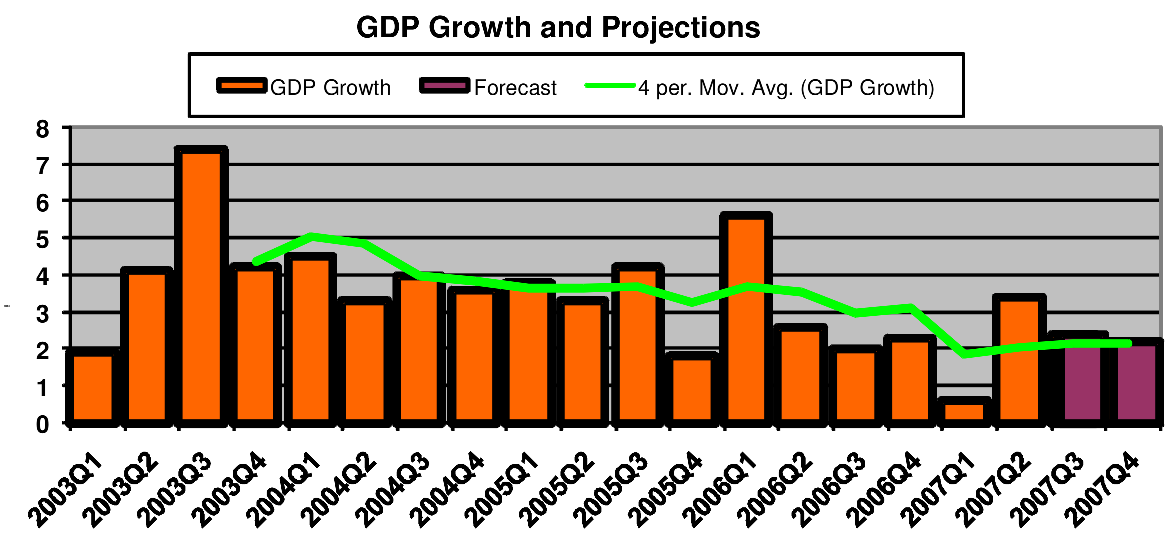
GDP growth takes a hit.

The June *Situation Report* began with a comment about the weak 1.3% initial estimate for 1Q2007 real GDP growth. I noted that this was the slowest quarterly rate in four years. It got worse! The final estimate came in with 0.6% growth. But the preliminary estimate for 2Q2007 turned strongly positive with a 3.4% growth, and the final estimate is expected to be even better.

At least for a while, it appeared that good news might drown out bad. Alas, this was before the sub-prime blues hit the economy.

The chart here shows GDP growth and the now altered projections for the next six months.



The sub-prime blues.

The sub-prime market collapse is a story that just keeps getting worse. When problems associated with defaults on low quality mortgages first surfaced a few months ago, the data suggested a serious problem was working its way through financial markets, but not a problem so severe that it would disrupt world financial markets. The problem is larger than first realized. But when saying this, we should know immediately that the magnitude of the problem relates to interest rates. If interest rates fall, so falls the magnitude of the problem. The problem has grown as interest rates have risen. Saying this opens one more can of worms. Once defaults set in, there is a kind of financial contagion that causes more defaults. Credit conditions tighten; cash becomes scarcer; asset prices fall; and borrowers that otherwise might just be marginal but okay become sub-marginal and not okay. And people suffer.

There are really two parts to the problem. The first relates to expanded lending in a low interest rate environment with a lot of creative finance and perhaps a little fraud. As a result, people who might otherwise still be renting, became homeowners. The other part relates to uncertainties generated by Federal Reserve monetary policy. By this I mean that most lenders could not have predicted that the Fed would increase interest rates 16 successive times during the interval when adjustable rate mortgages were to reset, and by doing so cause lots of mortgages to go belly up. I should add, that this part of the problem is not over. A large amount of mortgages will reset in the next 12 months.

The relative magnitude of the sub-prime mess was described cogently in an August 8 analysis by Economy.com's Mark Zandi. First off, he reports there are some $2.5 trillion in sub-prime and related outstanding mortgages, an amount equal to 25% of all mortgage balances. Of these some $1.3 trillion are in serious risk of default. Now this doesn't mean that the whole $1.3 trillion just goes up in smoke. A part of it does. Those assets and the housing associated with them will be repriced. The houses stay in the economy. Some of the financial assets go down the drain.

The at-risk group was originated between 2004 and early 2007. As Zandi points out, there was less than 10% equity in the mortgages at the time of origination. Since then interest rates have ratcheted up, housing prices have fallen, and the equity has disappeared. One other tidbit to consider, some $1 trillion or 34% of the banking system's assets are in residential mortgages, up from $800 million or 24% in 2002.

Default on mortgages or other loans destroys a family balance sheet, and sometimes a family. Default also destroys money in the economy. When loans are made, the money supply increases; when paid off, money is destroyed, but new loans and money can be created as credit markets rewind. Destroyed money that is not replaced by lending disturbs the economy. The Fed acts to cushion the shock. Accordingly, the Fed has pumped huge amounts of money, some $80 billion, into the market in the last half of August, and to make certain that cash entered, the Fed reduced the discount rate and encouraged banks to borrow. They obliged.

Did we know it was coming?

Consider this by Daniel Gross, *Slate*, May 12, 2006:

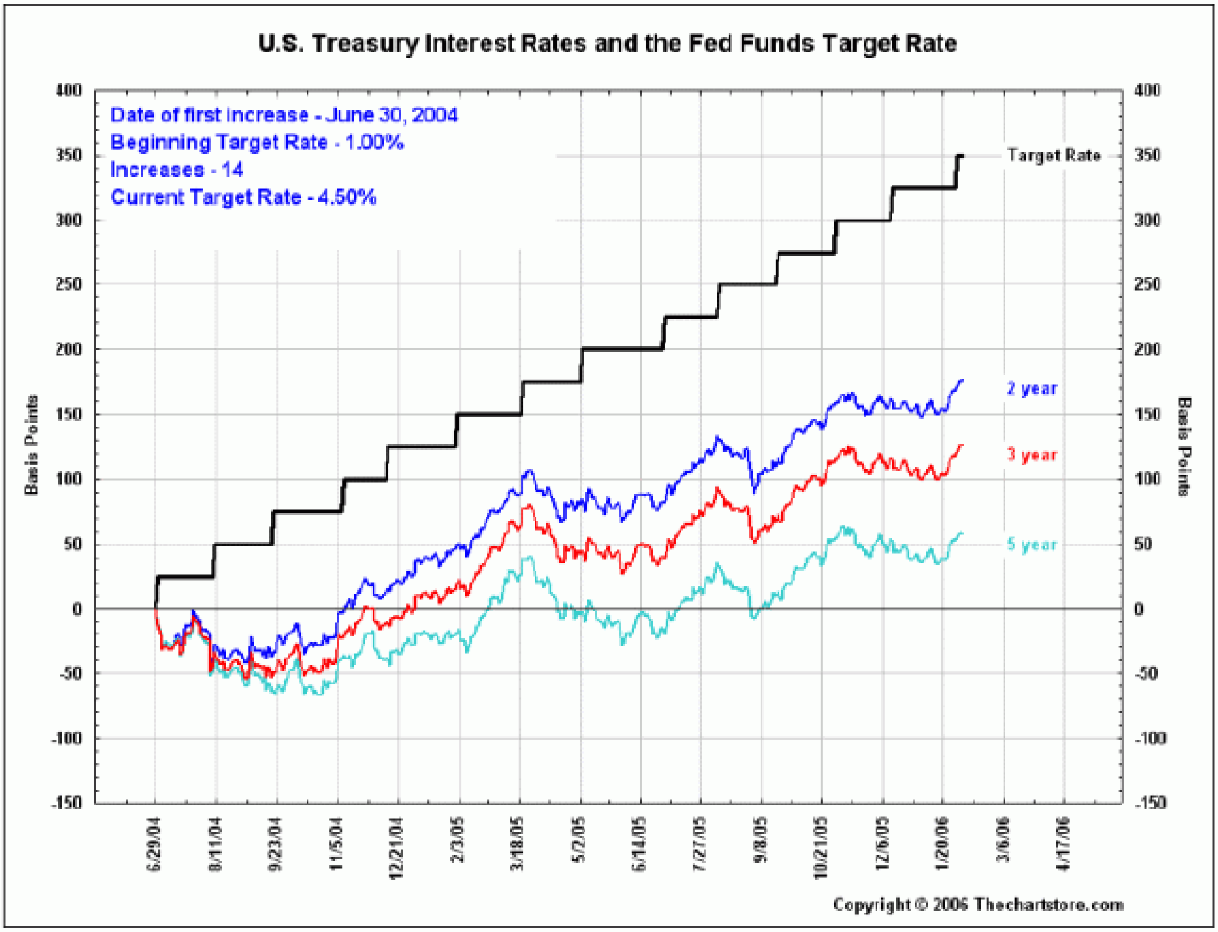
The Federal Reserve raised rates again earlier this week, the latest in a string of 16 rate increases that have pushed the Fed's overnight lending rate from 1 percent to 5 percent in two years. The Fed's actions, combined with growing concerns about inflation, have helped push short-term and long-term rates up across the board.

In real-estate, the adjustable-rate bomb could be even bigger. Home-buyers have increasingly turned to adjustable-rate mortgages (or ARMs) as prices have escalated. ARMs allow borrowers to lock in a lower rate in the short term in exchange for accepting the risk that they'll pay more in the future if interest rates rise. With every passing month, however, as mortgage rates rise, more and more borrowers are stuck with higher monthly payments. According to the Office of Federal Housing Enterprise Oversight, the volume of ARMs tripled between 2001 and 2004, from $304 billion to $985 billion in 2004. At the end of 2004, there were about $1.4 trillion in ARMs outstanding. That figure is likely significantly higher today, since the ARMs accounted for about 31 percent of the $2.9 trillion in mortgages issued in 2005, according to the Mortgage Bankers Association. For every 100 basis points (i.e., 1 percent) mortgage rates rise, holders of adjustable of ARMs will owe an extra $14 billion per year in interest.

Gross and others called attention to the effects of the Fed's battle against inflation on housing finance. And so we have a housing finance catastrophe.

So where does this take us? First, GDP growth over the next nine months will be reduced by a half percentage point or so. Second, the Fed will face a dreaded test. Reduce interest rates and encourage inflation or hold the line and encourage recession. All bets point toward an interest rate reduction in September 2007. And third, will the Fed learn from this and change its method for managing monetary aggregates? Let us hope that the days of interest rate roller coaster rides are behind us. Let us also hope that congress and state legislatures do not rush to pass "protective" legislation that will unduly regulate mortgage markets.

Notice the next chart by chartstore.com. It is not a very pretty picture.



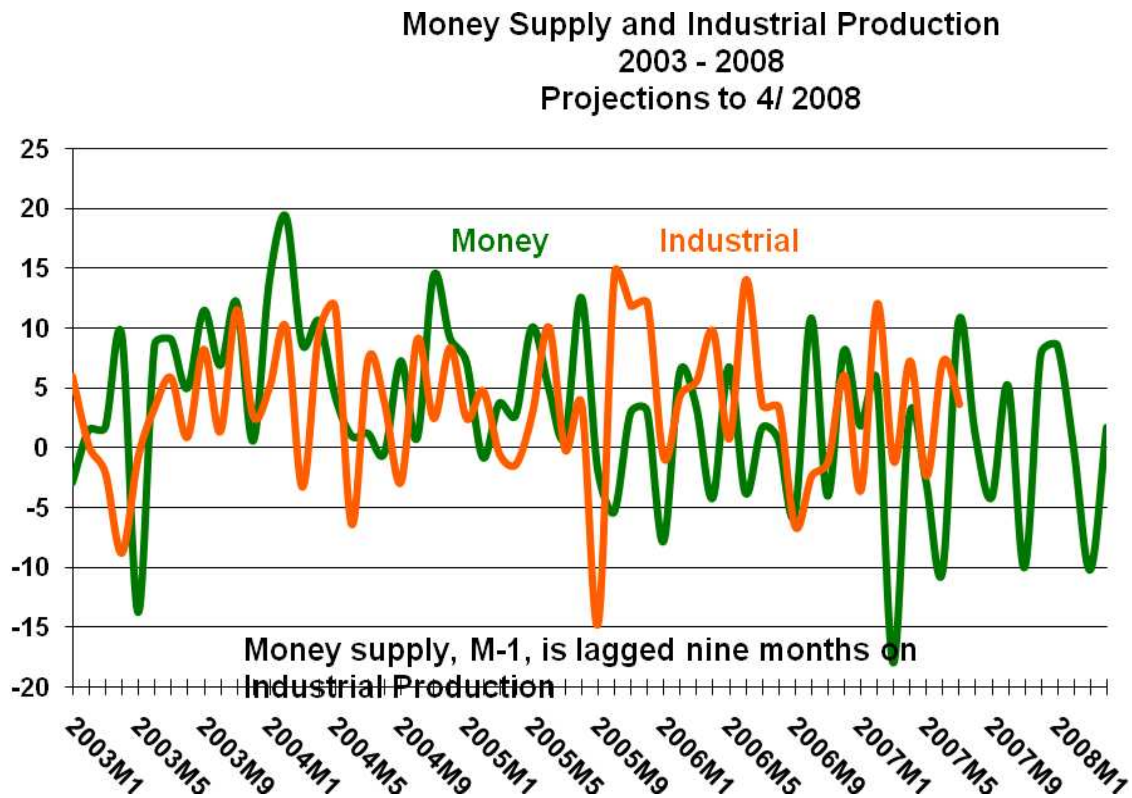
Money still matters.

Another prophetic turn of phrase gone bad is found in June's *Situation Report* when I wrote:

"Again, the forecast for 2007's last half looks good. Barring powerful events that could disrupt economic growth—a run-up in oil prices, war in Iran, to name two—we should expect to see better times ahead."

Well, we now struggle with another "powerful event"—the mortgage market fall out.

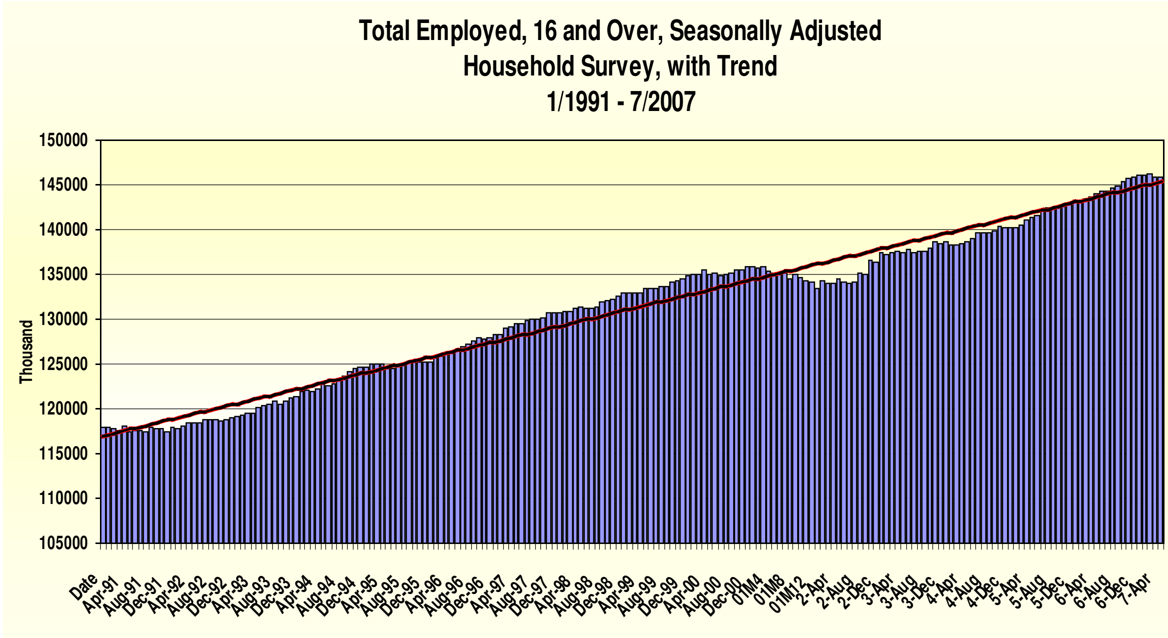
Let's see what the money supply model is saying. The next chart shows the mapping of money supply growth lagged nine months into U.S. industrial production. So far, the wiggly lines are matching up pretty well. When money supply growth falls, nine months later industrial production takes a dip. Notice the path predicted by the nine money supply observations that now reach to April 2008. The trend going



forward is clearly bumpy and negative. According to the chart, we will see slower growth in this year's last quarter, a positive nudge in the first quarter of 2008, only to be followed by some weakness. The recent actions taken by the Fed will tend to counter these negative effects in the last half of 2008. Notice the very last observation in the chart, which is for August 2007. The Fed opened the money value. Once again though, it takes a while for monetary actions to work their way through the economy.

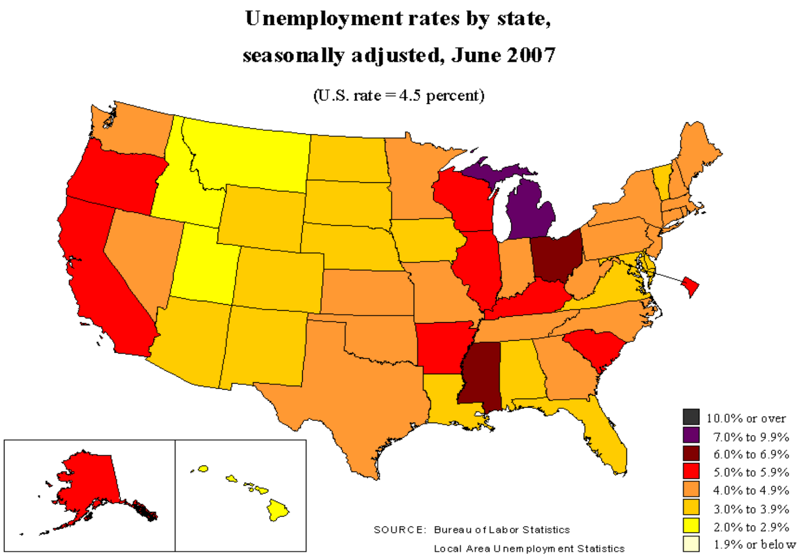
Employment growth, still looking good…, for now.

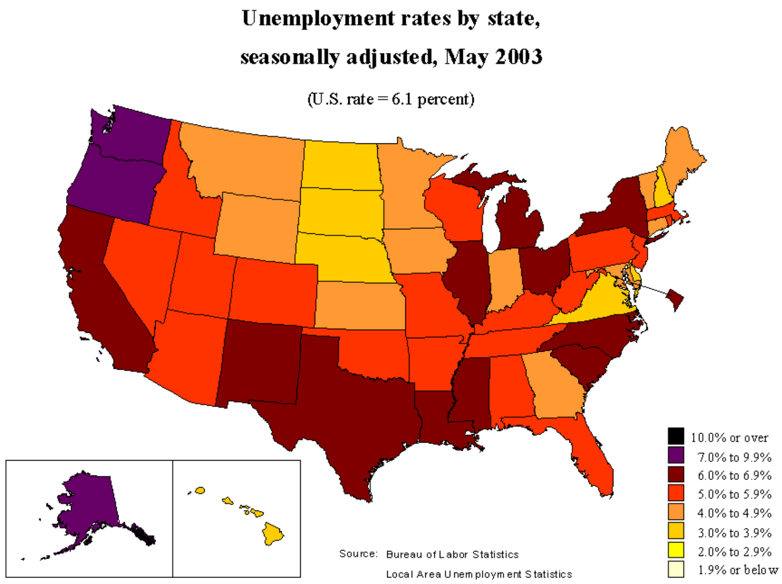
As seen in the next chart, the nation's total employment is growing, but just barely staying at the long-run trend level. The collapse of the sub-prime mortgage market will surely have a negative impact on employment growth for the rest of the year. Part of this will be reflected in financial services firms themselves, but another piece will be seen in residential construction and production of durable goods, like autos. Most credit sensitive markets will suffer as consumers tidy up their balance sheets.



Mapping the employment situation.

The next two charts report unemployment rates across the 50 states for June 2007 and May 2003. The first chart identifies weaker state economies, as measured by unemployment. The two charts provide insight into the variability of economic growth across regions. Michigan, Ohio, and Mississippi still register high unemployment numbers, and, of course, for very different reasons. The two charts tell us that the territory west of Mississippi is far stronger than the Eastern United States. And within the strength, a swath of states from Texas toward the Pacific Northwest are stronger yet.





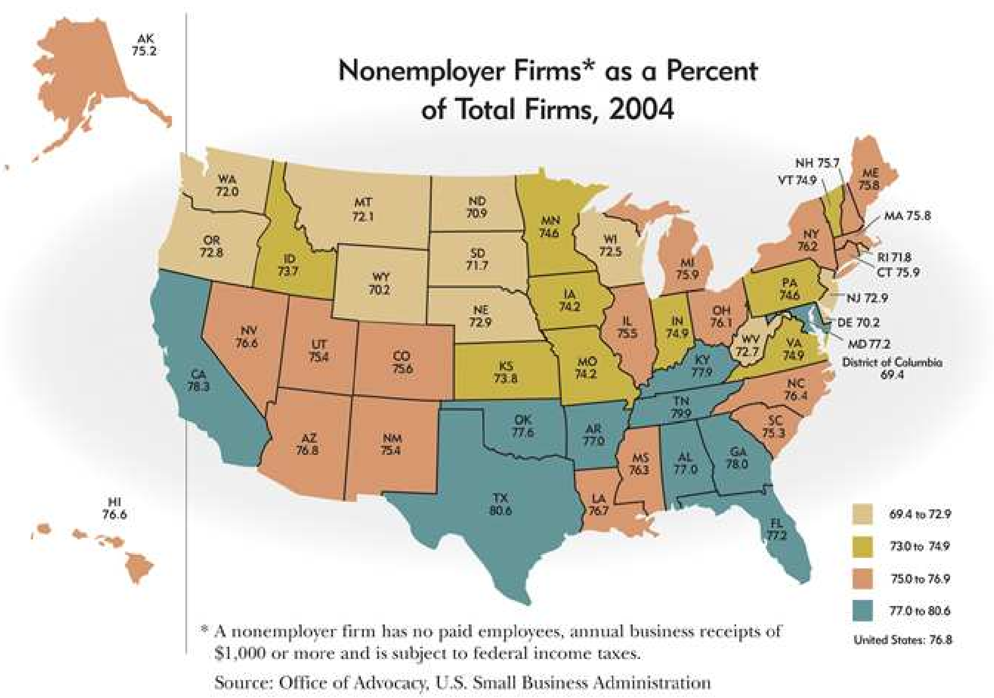
Other measures of regional strength.

Patterns of regional economic strength can be seen in yet other ways. Patents per 10,000 population is a commonly accepted measure of a region's participation in the knowledge economy. As seen in the next chart, that same swath of territory from Texas to the northwest shows considerable strength.

Patents per 10,000 People: 2001.

Then, the number of non-employee firms identifies entrepreneurial strength. These are firms that owned and operated by a single person who may contract out for services that may be needed to operate the enterprise.

By this measure, the Texas-Pacific Northwest corridor is strong, and so is the Southeast.



Workers and growth accounting.

What about the future? If only we knew three pieces of information about the future. Just three. We could then make an accurate GDP growth forecast.

The information? Growth of the population. Growth in labor productivity. And change in the labor participation or willingness to seek employment. When combined, these three numbers tell the tale.

In a recent issue of *The Regional Economist*, Kevin Kliesen of the St. Louis Federal Reserve Bank focused on the aging Baby Boomers, gathered some data and gave some projections as far out as the years 2018-2028. Because of population dynamics, including estimates for immigration, U.S. population growth is predicted to fall from the current 1.24% annual growth rate to 0.83% in 2018-2028. Other dynamics cause forecasts for labor force participation to fall systematically from now till 2029. Using long trend estimates, productivity growth estimates are strongly positive, however. Put this together and you get the GDP growth estimates shown in the table below.

Estimates for Annual Real GDP Growth: 1990-2028.

	1990-2006	2007-2017	2018-2028
Population	1.24	0.91	0.83
+ Participation	- 0.03	- 0.25	- 0.40
+ Productivity	1.82	1.82	1.82
= GDP	3.03	2.48	2.25

What are the chances for error? Of the three elements, population growth is the most stable number. Labor market participation is affected by marginal taxes. This can change quickly. And productivity? Chances are good that the longer run estimate will hold.

Put it together and we see the results of an aging population. An economy with a slower speed limit.

Not as bad as the Asian demographic cliff.

While the U.S. faces the effects of a large covey of aging Baby Boomers, China faces something far more daunting. According to the International Labor Organization, China's population is aging faster than any other nation in history. As a result, China's labor force is expected to grow just 2.0% in the next decade. In Japan, the number retiring from the workforce since 1999 has exceeded the number entering. Their labor force has negative growth, as does the overall population. And consider Russia, a country with 142 million people. The population is falling 700,000 per year. Without in-migration, the population could fall to 100 million in just 30 years.

But then there are some with exploding population growth. Afghanistan's workforce is predicted to grow by more than 40% over the next decade, Pakistan by 35%, and

Nepal and the Philippines by more than 25%. If the high growth countries can bring off increases in productivity, we will then see huge increases in real income.

Time to review the 2007 forecast.

With all this happening in world markets, it's time once again to dust off the 2007 forecast and see how we are doing. The data for 2007 are shown next. The data in the far right column are year-end values I estimated in December 2006. There are four months to go, and there's a whole lot of shaking going on.

	12/06 Forecast	Actual 12/06	12/07
GDP	3.8%	3.2%	2.7%
Inflation	2.7%	2.6%	2.5%
30-yr. Mortgage	6.80%	5.82%	6.0%
Unemploy Rate	4.4%	4.5%	4.0%
Prime	7.70%	8.25%	7.75%
Dow	11,500	12,460	13,200
Employ.	200M	150M	175M
Oil	$ 67.00	$ 58.00	$45.00
Gold	$ 510.00	$ 604.00	$600.00

With GDP growth registering 2.0% for the year's first six months, it is highly unlikely that we will see 2.7% for the year, especially after the sub-prime catastrophe. The inflation forecast is close to current estimates. The mortgage rate, currently at 6.50%, is pretty close. But with unemployment at 4.6% now and unlikely to improve, 4.0% looks like dreamland. The prime seems frozen at 8.25% for now, but will likely fall to around 8.00% or 7.75% by year end. And the Dow is bouncing around 13,200 with a good chance of ending the year at 13,600 or better. The employment estimate is close. Oil is heading down but not likely to hit $45 in December. And with gold trading at $667.00 an ounce, it highly unlikely that we will see $600.

With this said, let me offer the beginning elements of a forecast for December 2008. This is just a beginning. The final numbers come in December. Part of the numbers I am using come from Economy.com's macro forecast. Others are part of my ongoing estimates. Here are some numbers to consider.

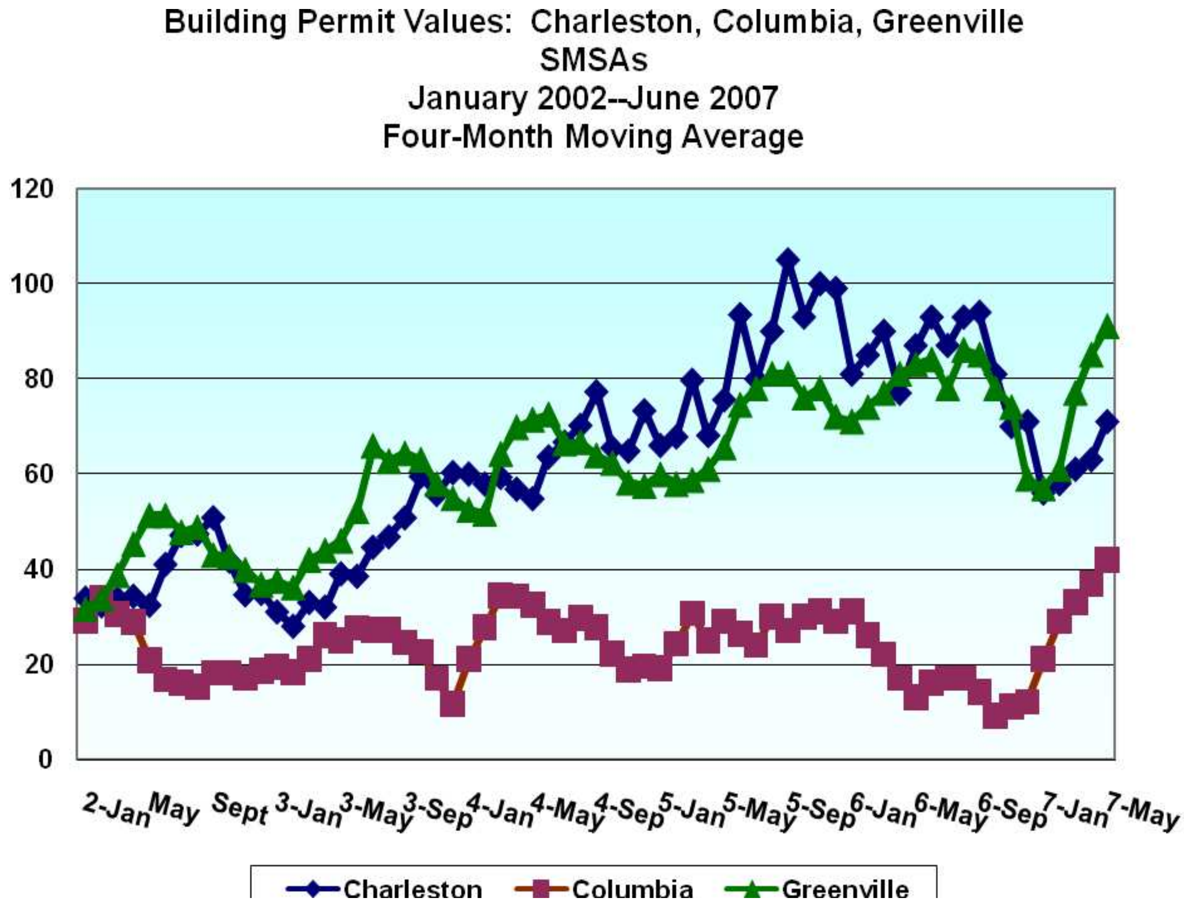
	August 22	2008 Forecast
GDP Growth	2.4%	2.7%
Inflation	2.3%	2.2%
30 yr. Mortgage	6.50%	6.20%
Unemployment	4.6%	4.8%
Prime 7.75%	8.25	
Dow	13,200	14,000
Employ. Growth	170,000	180,000
Oil	$69.00	$52.00
Gold	$660.00	$600.00

Data in the first column are for August 22, 2007. The 2008 forecast is the year-end estimate for 2008. There are more data to consider, but this gives a start.

A note on the South Carolina economy.

While credit market woes have affected national and world credit and real estate markets, South Carolina seems to be moving along gingerly. The exposure to the sub-prime problems seems to be minimal, and employment growth continues to move on a positive path. Put another way, South Carolina did not participate meaningfully in the Go-Go sub-prime real estate boom. In its July report on nationwide mortgage foreclosures, Realtytrac indicated that five state—California, Florida, Michigan, Ohio and Georgia—accounted for some 50% of the nation's foreclosures. In the same report, South Carolina was singled out as a state that seemed to be weathering the storm nicely.

Perhaps, we missed the fun and dodged the bullet. Yes, higher interest rates have taken the edge off mortgage lending and construction, but as shown here housing start data through May for the state's three major regions look healthy.



Raising S.C. per capita income.

Recent data from the U.S. Department of Commerce show the daunting difficulty of achieving growth in state per capita income. In 2005, South Carolina per capita income was $28,285, ranking the state 43rd in the U.S. The national per capita income is $34,471. Now, that is per capita. Every man, women and child.

A good friend described the challenge to me this way. Suppose we bring manufacturing jobs to the state that pay an average of $100,000 per year. 'Sounds great, doesn't it? And suppose that each job is associated with a family of four and one breadwinner. At the margin, per capita income falls to $25,000. Of course, the analysis is more complex than implied here. What was the family earning before? Still, it is a tough challenge.

Yes, we welcome those good paying manufacturing jobs. We also seek to attract young, single, college educated professionals to South Carolina. These are the builders of the future knowledge economy, the economy with higher per capita income.

Looking for heroes and entrepreneurs.

Dot and I had the good fortune to spend the better part of July in Eastern Europe. Given the opportunity to lecture in a Fund for American Studies program in Prague, we jumped. We were not alone. Members of our economics team included a former Clemson colleague Roger Meiners, now an economics professor at the University of Texas—Arlington, Ann Reed, a Clemson doctoral student, and Kurt Rotthoff, a recent PhD recipient from Clemson, now joining the faculty at Seton Hall.

It was a wonderful experience. We were with 140 university students from 30 countries, mostly Eastern Europe. My job was lecturing on the market economy, how it works, and what to expect from it. The course, offered through Georgetown University, was for undergraduate and graduate students. As always, I told the students about the critical role played by entrepreneurs, those wonderfully creative people who have a dream and a commitment to do something, find the way to get the necessary resources for doing it, and then successfully through hard work and dedication build a durable and effective enterprise.

To make the point that entrepreneurs are found in all walks of life, including the not-for-profit world, I chose to talk about Mother Teresa. Like some of my students, Mother Teresa was born in Albania. She entered a convent at 18, studied in Ireland to learn English, and then moved to Calcutta to teach. But she wanted to do more than teach; she wanted to start an enterprise to serve people in desperate need of help. She and 13 Sisters started Missionaries of Charity in 1950. She dedicated herself to getting the resources to make her mission a success. She attracted a lot of help. And she gave her all. At her death in 1997, the organization had 4,000 Sisters, 100,000 lay volunteers, and operated 610 missions in 123 countries. Their successful enterprise produced a lot of comfort for the sick and dying.

We talked about Mother Teresa and her dedicated service, a powerful story of a successful entrepreneur. A real hero.

We also talked about Henry Ford, Bill Gates and others who started with little but their imagination and ended with successful enterprises that produced beneficial products and services for other people.

Market economies allow people to do all kinds of things, and sometimes to become someone's hero.

A book worth reading.

Talk of entrepreneurship and the name Joseph Schumpeter quickly surfaces. An Eastern European born in what is now the Czech Republic, Schumpeter learned his economics at the now famous Vienna School, became a university faculty member of note in Europe and then left as World War II was brewing. He spent a long final tenure at Harvard. His marvelous writings focused on the dynamics of the market economy, on entrepreneurship, innovation, and the ability of markets to satisfy consumer demand. He coined the phrase "creative destruction" to describe what happens when consumer demand causes older successful products and firms to be pushed away by newer more desirable products and producers.

In wonderful 2007 book, *Prophet of Innovation,* Pulitzer Prize winning author Thomas K. McCraw tells the story of Schumpeter's life. The book also tells stories about economic ideas, fascinating people, and tragic times in Europe. This is a book to consider for a long weekend.